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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,541	07/01/2004	Wolfgang Arno Winkler	870-003-171	4305
4955 7590 02/06/2008 WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP BRADFORD GREEN, BUILDING 5 755 MAIN STREET, P O BOX 224 MONROE, CT 06468			EXAMINER FRANTZ, JESSICA L	
			ART UNIT 3746	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,541	Applicant(s) WINKLER, WOLFGANG ARNO	
	Examiner JESSICA L. FRANTZ	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4, 6-9, 12-16 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgbacher et al. 6,281,616 in view of Papst et al. 3,700,358 and further in view of Zenitani 5,788,467. Burgbacher teaches the invention substantially as claimed including a miniature axial fan or micro-fan as clearly shown in figure 1 which comprises a fan housing (20) having a first housing portion with a substantially rectangular cross section (see figure 1) through which a substantially annular air duct (24) extends in the axial direction, and a second housing portion (3) connected to said first housing portion, there being arranged in a central region of the air duct a carrier hub (28) which carries the internal stator (64) of an electronically commutated external-rotor motor (29) whose external rotor (42), equipped with at least one permanent magnet (62), carries an impeller wheel (52) that is arranged rotatably in the air duct and further carries fan blades (54), and comprising a circuit board configuration (34) which comprises a motor region (34) that is arranged in the central region of the air duct between the carrier hub and the internal stator as shown in figure 1, and carries at least one galvanomagnetic rotor position sensor (35) which is arranged on the circuit board that is controllable by the magnetic field of the permanent magnet

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provided on the external rotor. Burgbacher further teaches the internal stator is implemented with claw poles (82, 84, 88, and 90) and an annular winding (68) which is electrically connected to the motor region of the circuit board configuration (see column 3, lines 15-21). Burgbacher further teaches a strut/carrier member (26) which connects the external rotor motor to the housing (see column 2, lines 30-34). Burgbacher fails to teach the following claimed limitations that are taught by Papst 3,700,358: the circuit board configuration further comprises a component region as clearly shown in figure 1 in said second housing portion, for the reception of electronic components (2' and various other as shown in figure 2) of the external-rotor motor, which component region is arranged on the fan housing (1) substantially outside the air duct (as shown in figure 1); and which comprises a bridge portion (10) by way of which the motor region (4 as shown in figure 1) of the circuit board configuration is electrically connected to the component region, said bridge portion extending from said motor region through the annular air duct to said component region. Papst further teaches the circuit board is implemented in flexible fashion via the bridge portion as shown in figure 1 where the bridge portion is deflected between the motor region and the component region. Also, Pabst teaches the component region is arranged in a closed-off region of the fan housing as shown in both figures 1 and 2. Also, Papst teaches the circuit board extends in the component region in a direction running substantially parallel to a longitudinal axis of the air duct as clearly shown in figure 1. Pabst teaches this particular fan structure with the separated component regions for the purpose of increasing the input of air as well as the output and decreasing air friction as well as

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increasing cooling effects (see Papst column 2, lines 40-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the structure of Burgbacher with the structure of Papst for the purpose of increasing the input of air as well as the output and decreasing air friction as well as increasing cooling effects (see Papst column 2, lines 40-44). Neither Papst nor Burgbacher teach the following claimed limitations as taught by Zenitani: the component region includes a circuit board (23) supporting electronic parts where the circuit board extends in the component region in a direction running substantially parallel to a longitudinal axis of the air duct as clearly shown in figure 8 for the purpose of accommodating the circuit board (column 5, line 48 - column 6, line 12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the structure Zenitani for the purpose of accommodating the circuit board (column 5, line 48 - column 6, line 12).

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burgbacher et al. 6,281,616 in view of Papst et al. 3,700,358 in view of Zenitani 5,788,467 and further in view of Brown WO 99/37924. The modified invention of Burgbacher view of Papst in view of Zenitani teaches the invention substantially as claimed but fails to teach the following claimed limitation as taught by Brown: the motor region 39, the bridge portion (not labeled, see figure 3A) and the component region (41) are implemented as parts of the same circuit board as clearly shown in figure 3A. Brown teaches this structure in order to reduce the profile of the blower 10, thus permitting it to be disposed within a smaller slot in equipment being cooled (see page 7,

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lines 20-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the structure of Burgbacher view of Papst in view of Zenitani with the solid circuit board Brown in order to reduce the profile of the blower 10, thus permitting it to be disposed within a smaller slot in equipment being cooled (see page 7, lines 20-22).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burgbacher et al. 6,281,616 in view of Papst et al. 3,700,358 in view of Zenitani 5,788,467 and further in view of Simpson 4,174,563. The modified invention of Burgbacher view of Papst in view of Zenitani teaches the invention substantially as claimed but fails to teach the following claimed limitation as taught by Simpson: flexible stranded connectors are preferable connecting means because stranded wires withstand shock and vibration better than solid wires (Simpson column 1, lines 46-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the structure of Burgbacher view of Papst in view of Zenitani with the flexible stranded connectors of Simpson because stranded wires withstand shock and vibration better than solid wires (Simpson column 1, lines 46-51).

5. Claims 10-11 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgbacher et al. 6,281,616 in view of Papst et al. 3,700,358 and in view of Zenitani 5,788,467 further in view of Mizutani 5,532,533. The modified invention of Burgbacher view of Papst in view of Zenitani teaches the invention substantially as claimed but fails to teach the following claimed limitation as taught by Mizutani: the closed off region of the component regions circuit board (as shown in figure 13) is

sealed in liquid tight fashion by means of a cover (28, 29) and the component region is mounted on the cover by means of at least one support member (33) thereby protecting the component region from dust and heat generated at the motor portion as can be clearly gleaned from figure 13. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the structure of Burgbacher view of Papst in view of Zenitani with the structure of Mizutani for the purpose of protecting the component region from dust and heat generated at the motor portion as can be clearly gleaned from figure 13.

6. Claims 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgbacher et al. 6,281,616 in view of Papst et al. 3,700,358 in view of Zenitani 5,788,467 and further in view of Boris "How do I Write and Emulator?" Part 1, R1.00 October 17, 1999. The modified invention of Burgbacher view of Papst in view of Zenitani teaches the invention substantially as claimed but fails to explicitly teach that the fan is controllable via a data bus. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a device does (Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)) MPEP 2114 [R-1]. Thus, if a prior art structure is capable of performing the intended use as recited in the preamble, or elsewhere in a claim, then it meets the claim. Also, as taught by Boris, data busses can be implemented in order to send data in two directions and therefore reduce the number of separate controls needed page 3, section 2.5-2.5.1. Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to control the fan with the data bus of Boris in order to reduce the number of separate controls needed (Page 3, section 2.5-2.5.1).

Response to Arguments

7. Applicant's arguments with respect to claim 1-21 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant contends that Pabst fails to teach a second housing portion but as discussed above, the portion (3) of the housing is a "second housing portion."

9. Applicant further argues that there is no reason to combine Burgbacher with Papst. Examiner respectfully disagrees. It is better to make the fan structure smaller so it can be implemented in a wider array of devices.

10. Applicant further contends that Brown fails to teach components mounted in the motor region and a bridge portion. Examiner kindly disagrees. Region 39 depicts various components as clearly shown by figure 3A in the motor region and the bridge is the transition between the portion 39 and the outside corners.

11. Finally, Applicant contends that the combination of Burgbacher, Papst and Brown would be inoperable. Examiner kindly disagrees. The fan would still function and therefore, the limitations of the claims are met.

12. Furthermore, Examiner contends one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *IN RE KELLER*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *IN RE MERCK & CO.*, 800 F.2d 1091, 231 USPQ 375 (FED. CIR. 1986).

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA L. FRANTZ whose telephone number is (571)272-5822. The examiner can normally be reached on Monday through Friday 8:30a.m.-5:00p.m. E.S.T..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


JF

DEVON C. KRAIER
PATENT EXAMINER


2/4/06